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FULL-TIME EQUIVALENT OPERATING COSTS.
VIRGINIA COMMUNITY COLLEGE SYSTEM, RICHMOND

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CONCLUSIONS IN THREE AREAS WERE DERIVED FROM TABULAR PRESENTATIONS OF UNIT COST DATA FROM COLORADO, DELAWARE, GEORGIA, ILLINOIS, NORTH CAROLINA, OKLAHOMA, AND OREGON--(1) SMALL COLLEGES COST MORE TO OPERATE THAN LARGER COLLEGES. COSTS INCREASE AS MORE STUDENTS ENROLL IN A COLLEGE BUT NOT IN PROPORTION TO THE ENROLLMENT. (2) VOCATIONAL AND TECHNICAL PROGRAMS COST MORE THAN LIBERAL ARTS AND TRANSFER PROGRAMS. COSTS OF NEW OCCUPATIONAL PROGRAMS ARE ESPECIALLY HIGH. (3) NEW PROGRAMS AND NEW COLLEGES COST MORE TO OPERATE. (WO)

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Office of Surveys and Evaluation

FULL-TIME EQUIVALENT OPERATING COSTS

UNIVERSITY OF CALIF.
LOS ANGELES

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SUMMARY OF PERTINENT FACTS

1. Small colleges cost more to operate than large colleges.

   A. Small colleges cost more to operate than the larger colleges. As the colleges increase their services, the cost per student will increase temporarily because of the high initial expenses of new programs being added. (Colorado)
   B. In 1962-63, after seven years of operation, Florida found that in smaller colleges the employment possibilities in any occupational grouping is small, therefore, the number of students is also small and the cost of the operation more expensive. The cost per student in one or two smaller colleges was $1,100, whereas the state average cost per student was $570. (Florida)
   C. One important factor creating the difference in the cost per student range between the colleges is the size of a college's FTE enrollment. Costs increase as more students enroll in a college but not in proportion with the enrollment. (Oregon)

2. Vocational and technical programs cost more than liberal arts and transfer programs.

   A. Costs of new occupational programs run up to twice the costs of new academic programs. (Colorado)
   B. The costs are higher for specialized vocational and technical programs than for liberal arts and transfer programs. New programs that lead to employment may have to be established and operated at a high unit cost until enrollments rise. A study was conducted to determine this cost differential and the results are shown in Table 1. In these colleges, if it costs $1,000 per student in the liberal arts or transfer programs, it would cost about $1,950 per student in the engineering technologies. (Ernest F. Anderson-"Differential Costs of Curriculums in Comprehensive Junior Colleges")

3. New programs and new colleges cost more to operate.

   A. The first year of operation, and until the system becomes well established, will necessarily bring higher operating costs per student than for the long term. The long term is expected to average about $1,000 per student. (Delaware)
   B. Part of the increased costs per student was due to the development of new programs and the high costs for both 1965-66 and 1966-67 were in new colleges. These new colleges may even have to increase their FTE expenditure per student in order to offer quality educational curricula for a wide variety of vocational and technical areas and a two-year baccalaureate curricula. (Anderson and Spencer-Illinois)

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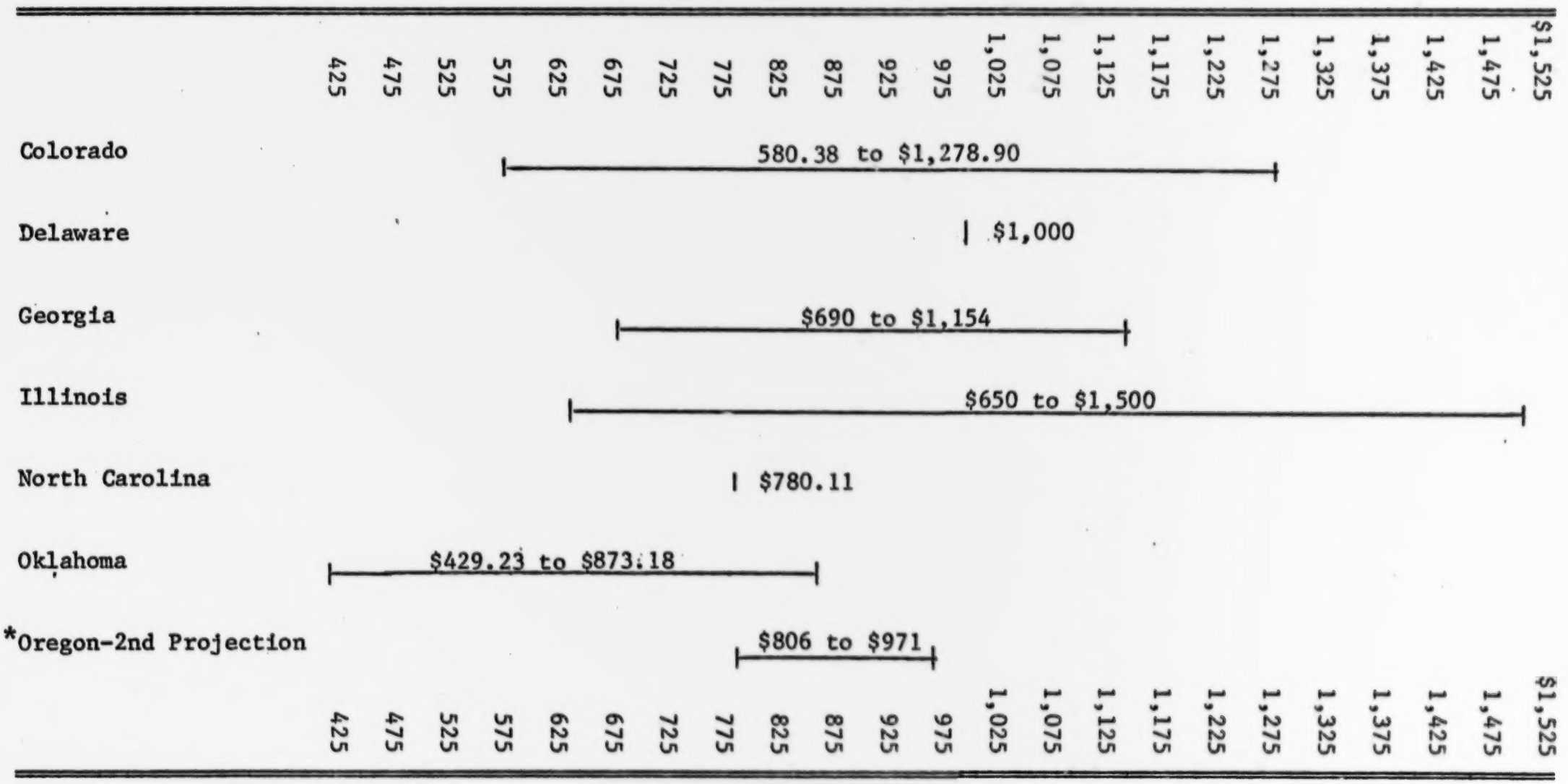
COST AND/OR RANGE OF COMPARATIVE FULL-TIME EQUIVALENT OPERATING COSTS

Fiscal Year 1967-68



*Discounting Oregon City as authors did.

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MEDIAN COMPARATIVE FULL-TIME EQUIVALENT OPERATING COSTS

Fiscal Year 1967-68
(Unless Shown Otherwise)

State	Minimum	Maximum	Median
Colorado	$ 580.38	$1,278.90	$ 929.64
Delaware (First year will cost more than long-term shown)	-	-	1,000.00
Florida (1962-63) (Using state average for minimum)	570.00	1,100.00	835.00
Georgia	690.00	1,154.00	922.00
Illinois	650.00	1,500.00	1,075.00
North Carolina (State and Federal funds only- Local funds would add to this)	-	-	780.11
Oklahoma	429.23	873.18	651.20
*Oregon-2nd Projection	806.00	971.00	888.50
Texas (1964-65)	-	-	733.09

*Discounting Oregon City as the authors did.

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FULL-TIME EQUIVALENT OPERATING COSTS

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EXPLANATION OF COMPARATIVE FTE OPERATION COSTS

The FTE (full-time equivalent) and cost per FTE for fiscal years 1963-64; 1964-65; and 1965-66 in the Colorado Community Junior Colleges are the actual figures reported in their 1967 publication, Community Junior Colleges by the Colorado Department of Education. The projected costs were derived by obtaining the per-cent of yearly increase or decrease for each college and using the average of this per-cent for each year projected. They have found that costs of new occupational programs run up to twice the costs of new academic programs and that a small college like Rangely has a much higher cost than the larger Northeastern. Trinidad with an even balance between academic and vocational programs and a large adult education program has lower costs than the single-purpose Otero. Mesa in a large population area has lower costs than the rural Lamar. They further state that as the colleges move toward comprehensiveness, and increase their services,they expect the cost per student to increase temporarily because of the high initial expenses of new programs being added.

The FTE and cost per FTE for the Georgia Junior Colleges came from the Office of the Treasurer's Analysis of Operating Budget, University System of Georgia, 1966-67. The FTE and cost are the actual fugures for 1965-66, the amounts budgeted for 1965-66, and the proposed amount for 1966-67. The projected costs were derived by obtaining the per-cent of yearly increase or decrease for each college and using the average of this per-cent for the year projected. Albany, Gainesville, and Kennesaw are all new colleges proposed for 1966-67. Middle Georgia, South Georgia, and Abraham Baldwin show a steady yearly increase, while Brunswick shows a yearly decrease. Columbus has a decrease the first year and an increase the second year. In 1964-65 the costs range from $535 at Middle Georgia to $1,352 at Brunswick. In 1965-66 the costs range from $596 at Middle Georgia to $994 at Brunswick. The proposed costs for 1966-67 range from $643 at Middle Georgia to $1,213 for Gainesville, The Projected costs for 1967-68 range from $695 at Abraham Baldwin to $1,154 at Gainesville.

All of the data, both actual and proposed, for FTE and cost per FTE in the Illinois Public Junior Colleges came from the Report of Selected Data and Characteristics, Illinois Public Junior Colleges, 1966-67, by Ernest F. Anderson and James S. Spencer. The FTE enrollment for 1965-66 was 40,014 and the total state funds budgeted was $27,495,117. This made the state average cost $687 per FTE student. The state funds budgeted for 1966-67 was $40,553,333, and for a FTE enrollment of 43,553, this made the state average cost $931 per FTE student. The authors said part of the increase was due to the development of new programs as junior colleges move to Class I districts. In 1965-66 the costs ranged from $425 at Belleville to $1,243 at Triton. In 1966-67 the costs ranged from $504 at Wabash Valley to $1,700 at Sauk Valley. They state that the high costs for both 1965-66 and 1966-67 were in new colleges and not representative of what costs should be for established colleges. They should not reduce their expenditure and may even find it necessary to increase per FTE expenditure in order to offer quality educational curricula for a wide variety of vocational and technical areas and a two-year baccalaureate curricula. In 1966-67 the projected costs range from $650 at Belleville to $1,500 at Sauk Valley.

The FTE and cost per FTE in the two-year colleges in Oklahoma for 1962-63, 1963-64, 1964-65, and 1965-66 came from Current Operation Income and Expenditures, Oklahoma State Colleges and Universities Fiscal Year 1965-66, by Oklahoma State Regents

for Higher Education. The projected costs were derived by obtaining the per-cent of yearly increase or decrease for each college and using the average of this per-cent for the years projected. In 1962-63 the costs range from $499.43 at Northeastern Oklahoma A & M College to $972.08 at Murray. For 1963-64 the costs range from $485.05 at Cameron to $933.49 at Murray. For 1964-65 the costs range from $441.27 at Northeastern Oklahoma A & M College to $812.24 at Connors. In 1965-66 the costs range form $459.12 at Cameron to $819.39 at Connors. For 1966-67 projected costs range from $429.23 at Cameron to $873.18 at Connors.

The FTE and cost per FTE for 1963-64, 1964-65, and 1965-66 in the Oregon Community Colleges came from data in Oregon Community Colleges, Annual Report 1965-66, by the State Department of Education. The projected costs were derived by obtaining the per-cent of yearly increase or decrease for each college and using the average of this per-cent for the years projected. The authors state that it is becoming apparent that after the beginning years, FTE costs are leveling off with less difference between colleges and with a clustering around the $900 level. With this in mind, a second projection was made to keep in line with their observation. In 1963-64 the costs ranged form $505 at Lane to $1,127 at Southwestern. The authors discounted Oregon City from the comparison because it only offered a very limited vocational program. In 1964-65 the costs ranged from $536 at Lane to $1,266 at Southwestern. In 1965-66 the costs ranged from $637 at Portland to $1,053 at Southwestern. They state that one important factor in creating this difference is the size of an institution's FTE enrollment. Costs increase as more students enroll in a college but the costs do not increase in proportion with the enrollment. The first projection for 1966-67 ranged in costs from $772 at Portland to $1,056 at Lane and the second projection from $772 at Portland to $1,011 at Southwestern. The first projection for 1967-68 ranged in costs from $806 at Portland to $1,365 at Lane and the second projection ranged from $806 at Lane to $971 at Southwestern. With the exception of Oregon City all of the second projections for 1967-68 are approaching the $900 as observed by the authors.

In The Challenge of Change in School Finance, Committee of Educational Finance, Washington,D. C., April 1967, "Differential Costs of Curriculums in Comprehensive Junior Colleges", by Ernest F. Anderson, the author restates the point that the costs are higher for specialized vocational and technical curriculums than for the liberal arts and transfer curriculums. A study was conducted using eight public junior colleges that met certain criteria. The results are shown in Table I, page 184, and the findings were sufficient to show there are differences in the costs of curriculums.

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COLORADO COMMUNITY JUNIOR COLLEGES
COMPARATIVE FULL-TIME EQUIVALENT OPERATING COSTS

College	Actual Cost and FTE						Projected Cost	
	1963-64	FTE	1964-65	FTE	1965-66	FTE	1966-67	1967-68
Lamar	$ 678.68	337	$ 732.80	404	$ 788.33	587	$ 842.25	$ 899.86
Mesa College	752.36	1,312	691.96	1,499	664.23	1,804	621.39	613.75
Rangely College	2,366.64	106	2,180.05	125	1,469.18	217	1,370.74	1,278.90
Northeastern	586.14	872	544.60	1,173	629.05	1,510	653.83	679.59
Othero	1,119.49	383	1,049.12	462	1,011.43	567	958.63	908.59
Trinidad	623.03	705	562.09	877	602.34	1,332	591.26	580.38
Total	$ 776.42	3,715	$ 709.59	4,540	$ 715.22			

Mesa Junior College District was listed for two years: 1963-64: $872.63
1964-65: $807.22

Source: Community Junior Colleges, Colorado Department of Education; Byron W. Hansford, Commissioner; Denver; 1966 and 1967.

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GEORGIA JUNIOR COLLEGES
COMPARATIVE FULL-TIME EQUIVALENT OPERATING COSTS

College	Actual 1964-65 FTE	Actual 1964-65 Cost	Budget 1965-66 FTE	Budget 1965-66 Cost	Proposed 1966-67 FTE	Proposed 1966-67 Cost	Projected 1967-68
Albany Junior College	-	$ -	-	$ -	453	$ 955	$ 997
Brunswick Junior College	179	1,352	358	994	497	968	921
Middle Georgia College	1,039	535	1,219	596	1,609	643	705
Columbus College	761	642	1,054	609	1,191	731	785
South Georgia College	730	597	912	600	1,050	658	690
Gainesville Junior College	-	-	-	-	340	1,213	1,154
Kennesaw Junior College	-	-	-	-	1,113	817	858
Abraham Baldwin Agricultural College	970	671	1,169	675	1,652	685	695

Source: Analysis of Operating Budget University System of Georgia, 1966-67.

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ILLINOIS PUBLIC JUNIOR COLLEGES
COMPARATIVE FULL-TIME EQUIVALENT OPERATING COSTS

Junior College	Actual			Projected		
	1964-65 Cost	1965-66 Cost	1966-67 FTE	1966-67 Cost	1967-68 FTE	1967-68 Cost
Belleville	$ 453	$ 425	2,142	$ 600	2,140	$ 650
Black Hawk	700	728	2,091	735	2,396	750
Bloom	600	628	1,161	790	1,318	885
Canton Community	508	710	1,096	-	-	-
Chicago City	729	880	20,009	969	20,854	-
Danville	591	940	964	1,050	1,039	-
Elgin Community	593	690	1,234	750	1,550	850
Freeport Community	848	867	525	895	620	-
Illinois Valley	808	773	1,098	850	1,205	900
Joliet	910	965	1,971	-	3,118	-
Kaskaskia	660	715	724	725	816	750
Lyons Township	879	846	911	855	0	-
Morton	927	1,019	1,483	1,050	1,550	1,075
Mt. Vernon Community	589	552	622	700	501	800
Olney Community	548	619	418	675	665	700
Rock Valley	0	962	1,849	975	2,495	-
Sauk Valley	-	-	456	1,700	664	1,500
Southeastern Illinois	450	600	523	650	537	700
Thornton	777	860	1,828	1,024	2,150	-
Triton	0	1,243	1,786	1,150	1,969	1,200
Wabash Valley	627	636	662	504	764	-

Source: Report of Selected Data and Characteristics, Illinois Public Junior Colleges, 1966-67 by Ernest F. Anderson, Coordinator of University-Junior College Relations, University of Illinois and James S. Spencer, Assoicate Secretary, Illinois College Board.

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TWO-YEAR COLLEGES IN OKLAHOMA
COMPARATIVE FULL-TIME EQUIVALENT OPERATING COSTS

College	1962-63 Cost	1963-64 Cost	1964-65 Cost	1965-66 FTE	1965-66 Cost	Projected Costs 1966-67	Projected Costs 1967-68
Cameron	$509.01	$485.05	$493.65	1,950	$459.12	$443.92	$429.23
Connors	758.75	898.21	812.24	497	819.39	845.86	873.18
Eastern	674.17	670.71	623.44	1,036	559.43	526.20	494.94
Murray	972.08	933.49	720.33	605	808.25	768.97	731.60
NEOAMC	499.43	504.35	441.37	1,555	546.05	568.27	591.40
NOC	558.62	655.02	501.91	915	546.95	551.82	556.73
OMA	748.74	709.66	658.38	755	696.98	681.72	666.79
State Totals	$620.13	$628.77	$562.17	7,313	$580.73		

Source: Current Operating Income and Expenditures, Oklahoma State Colleges and Universities, Fiscal Year 1965-66, Oklahoma State Regents for Higher Education, Oklahoma City.

Colleges: Cameron State Agricultural College; Connors State Agricultural College; Eastern Oklahoma A & M College; Murray State Agricultural College; Northeastern Oklahoma A & M College; Northern Oklahoma College; and Oklahoma Military Academy.

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OREGON COMMUNITY COLLEGES
COMPARATIVE FULL-TIME EQUIVALENT OPERATING COSTS

College	1963-64	Actual 1964-65		Actual 1965-66		Projected	
		FTE	Cost	FTE	Cost	1966-67	1967-68
Blue Mountain	$ 954	419.6	$ 930	576.5	$ 935	$ 925	$ 916
Central Oregon	836	430.6	1,038	629.9	937	1,000/918	1,067/900
Clatsop	903	334.6	1,083	459.6	994	1,049/954	1,107/916
Lane	505*	607.0	536*	1,358.8	817	1,056/878	1,365/944
Oregon City	330*	121.3	372*	124.1	368*	389	412
Portland	520*	1,712.3	602*	2,944.3	647	722	806
Salem	538*	453.3	703*	608.3	766*	918/824	1,100/886
Southwestern	1,127	484.1	1,266	615.5	1,053	1,011	971
Treasure Valley	699	434.0	715	810.6	822	893	970
Umpqua	-	158.7	917	272.2	903	889	875
State Average	$ 694	5,155.5	$ 773	8,399.8	$ 758		

*Operated only vocational-technical programs in years indicated.

Source: Oregon Community Colleges, Annual Report 1965-66; State Department of Community Colleges; Salem, Oregon.

2/8/68

Differential Costs of Curriculums in Comprehensive Junior Colleges

Ernest F. Anderson

THE OPERATION OF educational programs to train vocational and technical graduates is a purpose which public junior colleges have attempted to realize during recent years. The realization of this purpose has at best shown limited success when the number of graduates of these curriculums is compared with the societal needs in these specialized occupations.

The failure of a large number of junior colleges to develop broad comprehensive programs of vocational and technical curriculums may be attributable in part to the differential in unit cost between the liberal arts and transfer curriculums and the specialized vocational and technical curriculums.

In the large comprehensive junior college all curriculums have a basic component of course work defined as liberal arts or general education. These are courses taken by students in all or almost all of the curriculums of the college. The occupational curriculums designed for preparation of vocational and technical specialists have components of specialized work commonly referred to as "vocational" or "technical" courses in addition to the basic component of liberal arts. Some specialized technical curriculums may have as much as 75 percent of the two-year program made up of the specialized courses and only 25 percent liberal arts components. Curriculums that culminate in law, medicine, teaching, and other professions requiring four or more years of college consist almost entirely of liberal arts.

The unit cost of providing the first two years of a curriculum in a liberal arts college is far different from the unit cost in a large comprehensive institution which offers a curriculum in liberal arts and provides the liberal arts components as well as the specialized courses for all of the vocational and technical curriculums offered. Some very large junior colleges offer as many as 40 specialized curriculums designed to prepare graduates for immediate employment. The cost of specialized components of vocational and technical curriculums in comprehensive institutions will necessarily be higher than the liberal arts components because of the small student-staff ratio in shops and laboratories and the greater quantity of facilities and instructional materials utilized per student. This means that on the average it will cost more per student to provide the specialized vocational and technical curriculums than it costs to provide the liberal arts curriculums designed for transfer. These differences in cost between general and specialized curriculums raise fundamental questions in the planning, development, and operation of a state system of comprehensive junior colleges.

Dr. Anderson is Coordinator of University-Junior College Relations and Assistant Professor of Higher Education, University of Illinois, Urbana, Illinois.

Given the present method of financing junior colleges used in most states, the course mix or the proportion of general to special courses in a curriculum, and the curriculum mix, or the proportion of general to occupational curriculums, in the total program are very important considerations for junior colleges because local funds usually have to be allocated to pay the extra cost for the specialized vocational and technical curriculums. As we move more and more to state financing of junior colleges, there should be less concern on the local level about the "extra" costs of special curriculums because the state will be supporting more of these extra costs.

During the development and growth of institutions, officials choose which curriculums to offer and which ones not to provide. When state policy permits, the tendency is for local boards of control to establish and operate the least expensive rather than the curriculums for which individual students and society have the greatest need. An institution must know the unit costs of courses and curriculums so that it can plan for the most economical number of students to admit to a particular curriculum. Yet, new curriculums that lead to employment in developing occupations may have to be established and operated at a high unit cost until enrollments rise to provide a more economical unit cost.

To find out the actual cost differential in operating junior colleges, a study was conducted to determine the relationship of the costs of special vocational and technical curriculums of less than four years to the costs of transfer and liberal arts curriculums leading to programs of study requiring four or more years of college study. Eight publicly supported junior colleges were selected from the population of institutions which met the following criteria in 1964-65: (a) continuous operation as a separate junior college for a minimum of five years, (b) a comprehensive program consisting of common transfer curriculums and at least 10 specialized vocational and technical curriculums of at least one academic year and less than four years in length, (c) a minimum of 2,000 full-time-equivalent students, and (d) high-quality programs as evaluated by junior college specialists in the respective states. The group selected comprised two schools each from California, Florida, Michigan, and New York.

The unit costs of all courses in a curriculum were totaled to determine the total cost of educating a student in that curriculum. The cost of educating a student in each specialized vocational and technical curriculum was then compared with the average cost of educating a student in the liberal arts curriculums at that institution to see if there was a consistent relationship in all eight institutions. The results are shown in Table 1.

All liberal arts and transfer curriculums offered in an institution were grouped together because the courses comprising them consist of a large component of general courses common to almost all the curriculums. This commonality of courses among curriculums results in curriculum unit costs similar for almost all liberal arts and transfer curriculums in an institution. The vocational and technical curriculums have a low proportion of general courses common to all curriculums and a high proportion of specialized courses. This results in a greater variability in unit costs for vocational and technical curriculums than for the liberal arts

The Challenge of Change in School Finance

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and transfer curriculums. Therefore, the average cost for the liberal arts and transfer curriculums is a relatively stable basic figure for each institution with which the differential costs of vocational and technical curriculums can be compared. The vocational and technical curriculums were grouped into eight types to facilitate analysis and comparison.

Table 1 shows the number of institutions offering each type of curriculum, the number of curriculums offered in each category, and the average cost ratio for each major type of vocational and technical curriculum. For example, the average cost ratio of the engineering technology curriculums was 1.95. This represents an average for 19 curriculums offered in the eight institutions. The ratio of 1.95 means that in these institutions if it cost $1,000 to educate a student for one year in a liberal arts or transfer program, it costs on the average about $ 1,950 to educate a student in the engineering technologies. This figure includes expenditures for current operation and excludes expenditures for original equipment, capital outlay, and debt service.

TABLE 1.—RATIO OF VOCATIONAL AND TECHNICAL CURRICULUM UNIT COSTS IN EACH OF EIGHT CATEGORIES TO THE UNIT COSTS OF LIBERAL ARTS CURRICULUMS IN EIGHT INSTITUTIONS, 1964-65

Categories	Number of institutions	Number of curricula	Average ratio (Liberal arts = 1.00)
1	2	3	4
Liberal arts	8	...	1.00
Applied arts	2	2	1.76
Engineering technologies	8	19	1.95
Business and office occupations	8	46	.95
Health and medical occupations	7	14	1.49
Industrial technical occupations	6	19	1.52
Dietetics and home economics occupations	2	7	1.21
Public service occupations	4	7	.96

Only two institutions in the group offered one curriculum each in applied arts. The average ratio for these two curriculums was 1.76. The number of curriculums and institutions represented in this category is too small to be useful in generalizing to other institutions of like character.

The findings of this study are sufficient to show that the next stage in the analysis to determine the differential costs of junior-college curriculums is necessary. The conclusions can be made more precise by data that institutions can now readily develop by use of an improved design for unit-cost analysis. Items of cost, such as capital outlay for buildings and equipment, teaching supplies, auxiliary services, and pupil personnel services, can be allocated with sufficient accuracy to courses and student credit hours, if an institution desires these types of data. When this is done, propositions and hypotheses that will provide a basis for more specific and detailed conclusions can be projected and tested. This type of research will rapidly improve the present state of knowledge about the cost of educating students in comprehensive junior colleges.

Through the utilization of these findings educational planning can be facilitated. Trends in enrollments in various curriculums will provide a basis for projecting costs. Then, investment in education can be evaluated better than at the present.

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INDIVIDUAL STATE FULL-TIME EQUIVALENT OPERATING COSTS

The Delaware Technical and Community Colleges proposed to open its first branch in Sussex County in September 1967, with an estimated enrollment of 500 students the first year and approximately 800 students the second year. The first year of operation, and until the system becomes well established, will necessarily bring higher operating costs per student than for the long term. For long term, the operating costs are expected to average about $1,000 per student per year.[1.]

After seven years of operation, Florida was convinced they needed a minimum of 400 students for occupational programs. They could provide quality basic liberal arts and college transfer programs for less than 300 students in institutions. In smaller colleges, the employment possibilities in any occupational grouping is small, therefore, the number of students is also small and the cost of operation more expensive. In 1962-63 the colleges varied in size from 180 students to 3,000, with the cost in smaller colleges as much as $100 more than the larger ones. The per student cost in one or two smaller colleges was as high as $1,100, whereas the State average per student cost was $570.[2.]

North Carolina had a projected FTE of 29,326 for 1967-68. The State appropriation was $20,888,662 which made the cost $712.29 per FTE student. There was also $1,988.728 in Federal funds, which was $67.82 per FTE student. This is a total of $780.11 per FTE student from State and Federal funds. It does not include any monies from local funds. Local funds are provided for maintenance of buildings and grounds, supplies, and materials, janitorial salaries, utilities, and to supplement Presidents' salaries, and sometimes even faculty salaries.[3.]

In Ohio, support factors represent the amount of funds provided by the State for each full-time equivalent student. For fiscal years 1967-69, the Regents Budget recommends a new support factor of $350 for community colleges, technical institutions, universities, branches and lower divisions of State universities. This does not include local funds or tuition fees.[4.]

Texas had a FTE of 31,524 for fiscal year 1964-65. The State appropriated $8,250.215 which made the cost $261.71 per FTE student. This appropriation represented 35.7 percent of the total income. On this basis, the total income would be $23,109,846. This would make the total cost approximately $733.09 per FTE student.[5.]

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1. Delaware Technical and Community Colleges, First Report by the Board of Trustees, December 27, 1966.
2. Technical-Vocational Education and the Community Colleges, Southern Regional Education Board.
3. Battle, Hugh, North Carolina Department of Community Colleges; Raleigh, N. C.
4. From the Office of the President/The Ohio State University, Letter, Spring, 1967.
5. Annual Report of the Coordinating Board, Texas College and University System, December 31, 1965.

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